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5 SEM TDC BOT M 1

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(November)

BOTANY

(Major)

Course : 501

(Development and Reproduction of Angiosperm)

Full Marks : 48

Pass Marks : 19 (Backlog)/ 14 (2014 onwards)

Time : 2 hours

*The figures in the margin indicate full marks
for the questions*

1. Answer the following as directed : 1×5=5

(a) Parenchyma /Cambium /Sclerenchyma
tissue contributes the most mechanical
strength to plants.

(Choose the correct one)

(b) Multiple epidermis on dorsal and ventral
sides of the leaf is found in ____.

(Fill in the blank)

(2)

(c) Tissue system associated with conduction of water, minerals and food materials.

(Express in one word)

(d) Endosperm of the seed develops from the _____.

(Fill in the blank)

(e) Development of more than one embryo within the same embryo sac.

(Express in one word)

2. Write briefly on the following : $2+2+2+3=9$

(a) Types of stomata in dicot plants

(b) Types of vascular bundles

(c) Parthenogenesis and apospory

(d) Haustorial structure of endosperm

3. Write on *either* [(a) and (b)] or [(c) and (d)] :

$5 \times 2 = 10$

(a) Activity of cambium ring

(b) Bisporic type of embryo sac with example

(c) Quiescent centre or quiescent zone

(d) Paleontology

4. Define anomalous secondary growth in thickness with suitable sketches. Describe the phenomenon in a dicotyledonous stem that you have studied. $3+6+3=12$

Or

Compare between the following : $3 \times 4 = 12$

- (a) Tunica and corpus
 - (b) Fascicular and interfascicular cambiums
 - (c) Phellem (cork) and phelloderm
 - (d) Anatomy of dorsiventral leaf and isobilateral leaf
5. Differentiate between microsporogenesis and megasporogenesis. Trace the development of embryo after syngamy in a dicot plant. $4+8=12$

Or

Write accounts on the following : $4 \times 3 = 12$

- (a) Apomixis
- (b) Nuclear type endosperm
- (c) Monosporic and Tetrasporic embryo sac
